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EXAMINER

LINDSEY, MATTHEW S

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/578,646  
Filing Date: May 09, 2006  
Appellant(s): SOOMRO, AMJAD

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Amjad Soomro  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 16 November 2009 appealing from the Office action mailed 26 June 2009.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

2004/0264397	Benveniste	12-2004
2004/0103282	Meier	5-2004
2003/0126244	Smith	7-2003

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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**2. Claims 1, 3-8, 10-20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benveniste (US 2004/0264397 A1) in view of Meier (US 2004/0103282).**

3. With respect to Claim 1, Benveniste disclosed: “A method to determine in a network component when to provide service to client devices operating in power-saving mode in a wireless network (Abstract, lines 1-3), said method comprising:

receiving requests for service from respective ones of said client devices (Figure 7, object 760 and [0074], lines 1-3), the received requests for service including a scheduled requested servicing signal received from a first one of the client devices ([0026], lines 1-9) and an unscheduled request received from a second one of the client devices ([0008], lines 1-6, where access points receive unscheduled frames from client devices, resulting in a collision);

said network component being informed of said scheduled request ([0026], lines 1-9, where the network component is informed of a scheduled request by receiving it)”, and “said network component being informed of said unscheduled request ([0008], lines 1-6, where the network component is informed of an unscheduled request by receiving it)”, and;

“determining an ability to accommodate said received requests for service ([0050], lines 1-7); and

providing respective indications of the ability to accommodate said received requests for service to the first and second ones of said client device ([0052], lines 1-3, and [0054], lines 1-3)".

Benveniste did not explicitly state: "said network component being informed of said scheduled request by a field of a traffic specification format being set to a first value, said network component being informed of said unscheduled request by said field of said traffic specification format being set to a second value different from said first value".

However, Meier disclosed: "said network component being informed of said scheduled request by a field of a traffic specification format being set to a first value, said network component being informed of said unscheduled request by said field of said traffic specification format being set to a second value different from said first value (table below [0470], specifically the SCM flag for Bit 14, which is an unscheduled flag to indicate if the message is scheduled or unscheduled)".

One of ordinary skill in the art at the time of the invention would have been motivated to combine Benveniste and Meier since Benveniste disclosed a method for delivering frames to wireless devices and Meier disclosed a system for handling communications with mobile nodes in a wireless network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the wireless network system of Benveniste with the

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teachings of Meier to include support for a traffic specification format indicating a scheduled or unscheduled request. Motivation to combine these references comes from an access point being able to differentiate between scheduled and unscheduled requests to provide increased QoS for scheduled requests since they were arranged in advance.

4. With respect to Claim 8, Benveniste disclosed: “A device to determine when to provide service to client devices operating in power-saving mode in a wireless network (Abstract, lines 1-3), said device comprising:

a memory (Figure 3, object 303);

a processor in communication with said memory (Figure 3, object 302), said processor operable to execute code to:

receive requests for service from respective ones of said client devices (Figure 7, object 760), the received requests including a scheduled request received from a first one of the client devices ([0026], lines 1-9) and an unscheduled request received from a second one of the client devices ([0008], lines 1-6, where access points receive unscheduled frames from client devices, resulting in a collision);

said device being informed of said scheduled request ([0026], lines 1-9, where the network component is informed of a scheduled request by receiving it)”, and “said device being informed of said unscheduled request ([0008], lines 1-6, where the network component is informed of an unscheduled request by receiving it)”;

“determine an ability to accommodate received requests for service ([0050], lines 1-7); and

provide respective indications of the ability to accommodate said received requests for service to the first and second ones of said client device ([0052], lines 1-3, and [0054], lines 1-3)”.

Benveniste did not explicitly state: “said device being informed of said scheduled request by a field of a traffic specification format being set to a first value, said device being informed of said unscheduled request by said field of said traffic specification format being set to a second value different from said first value”.

However, Meier disclosed: “said network component being informed of said scheduled request by a field of a traffic specification format being set to a first value, said network component being informed of said unscheduled request by said field of said traffic specification format being set to a second value different from said first value (table below [0470], specifically the SCM flag for Bit 14, which is an unscheduled flag to indicate if the message is scheduled or unscheduled)”.

One of ordinary skill in the art at the time of the invention would have been motivated to combine Benveniste and Meier since Benveniste disclosed a method for delivering frames to wireless devices and Meier disclosed a system for handling communications with mobile nodes in a wireless network.



Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the wireless network system of Benveniste with the teachings of Meier to include support for a traffic specification format indicating a scheduled or unscheduled request. Motivation to combine these references comes from an access point being able to differentiate between scheduled and unscheduled requests to provide increased QoS for scheduled requests since they were arranged in advance.

5. With respect to Claim 18, Benveniste disclosed: "A processor (Figure 3, object 302) within a network component (Figure 3, objects 301, 304) to determine an ability of said network component to honor requests for service received from respective client devices (Abstract, lines 1-3), said processor being configured to execute code to cause the network component to:

review an operating state of said network component ([0036], lines 3-7, where buffering frames for a power-saving station in doze state indicates that the access point reviews the operating state of the network component);

review said requests for service ([0050], lines 1-7), the requests for service including a scheduled request received from a first one of the client devices ([0026], lines 1-9) and an unscheduled request received from a second one of the client devices ([0008], lines 1-6, where access points receive unscheduled frames from client devices, resulting in a collision);

said network component being informed of said scheduled request ([0026], lines 1-9, where the network component is informed of a scheduled request by receiving it)", and "said network component being informed of said unscheduled request ([0008], lines 1-6, where the network component is informed of an unscheduled request by receiving it)", and;

"accommodate said received requests for service ([0054], lines 1-3), with modification when necessary ([0063], lines 1-4 and [0065], lines 1-3), when said operating state indicates that said requests for service are able to be accommodated ([0053], lines 1-4); and

provide respective indications of said accommodation to said first and second one of the client devices ([0065], lines 1-3)".

Benveniste did not explicitly state: "said network component being informed of said scheduled request by a field of a traffic specification format being set to a first value, said network component being informed of said unscheduled request by said field of said traffic specification format being set to a second value different from said first value".

However, Meier disclosed: "said network component being informed of said scheduled request by a field of a traffic specification format being set to a first value, said network component being informed of said unscheduled request by said field of said traffic specification format being set to a second value different from said first value

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(table below [0470], specifically the SCM flag for Bit 14, which is an unscheduled flag to indicate if the message is scheduled or unscheduled)”.

One of ordinary skill in the art at the time of the invention would have been motivated to combine Benveniste and Meier since Benveniste disclosed a method for delivering frames to wireless devices and Meier disclosed a system for handling communications with mobile nodes in a wireless network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the wireless network system of Benveniste with the teachings of Meier to include support for a traffic specification format indicating a scheduled or unscheduled request. Motivation to combine these references comes from an access point being able to differentiate between scheduled and unscheduled requests to provide increased QoS for scheduled requests since they were arranged in advance.

6. With respect to Claim 22, Benveniste disclosed: “A computer readable media whose contents cause a processor to execute instructions to cause a network component to:

receive requests for service from client devices (Figure 7, object 760 and [0074], lines 1-3), the received requests including a scheduled request received from a first one of the client devices ([0026], lines 1-9) and an unscheduled request received from a

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second one of the client devices ([0008], lines 1-6, where access points receive unscheduled frames from client devices, resulting in a collision);

become informed of the scheduled request ([0026], lines 1-9, where the network component is informed of a scheduled request by receiving it)", and "said network component being informed of the unscheduled request ([0008], lines 1-6, where the network component is informed of an unscheduled request by receiving it)", and;

"determine an ability to accommodate said received requests for service ([0050], lines 1-7); and

provide respective indications of the ability to accommodate said received requests for service to the first and second ones of said client device ([0052], lines 1-3, and [0054], lines 1-3)".

Benveniste did not explicitly state: "become informed of the scheduled request by a field of a traffic specification format being set to a first value, become informed of the unscheduled request by said field of said traffic specification format being set to a second value different from said first value".

However, Meier disclosed: "become informed of the scheduled request by a field of a traffic specification format being set to a first value, become informed of the unscheduled request by said field of said traffic specification format being set to a second value different from said first value (table below [0470], specifically the SCM flag for Bit 14, which is an unscheduled flag to indicate if the message is scheduled or unscheduled)".

One of ordinary skill in the art at the time of the invention would have been motivated to combine Benveniste and Meier since Benveniste disclosed a method for delivering frames to wireless devices and Meier disclosed a system for handling communications with mobile nodes in a wireless network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the wireless network system of Benveniste with the teachings of Meier to include support for a traffic specification format indicating a scheduled or unscheduled request. Motivation to combine these references comes from an access point being able to differentiate between scheduled and unscheduled requests to provide increased QoS for scheduled requests since they were arranged in advance.

7. With respect to Claims 3 and 10, Benveniste disclosed: “wherein said scheduled request includes a proposed service schedule ([0049], lines 1-3)”.

8. With respect to Claims 4 and 11, Benveniste disclosed: “further comprising: modifying said proposed service schedule ([0063], lines 1-4)”.

9. With respect to Claims 5 and 12, Benveniste disclosed: “further comprising: providing said modified proposed service schedule to said first one of the client devices ([0065], lines 1-3)”.

10. With respect to Claims 6 and 13, Benveniste disclosed: “wherein said indications are selected from a group consisting of: denied ([0052], lines 1-3), accommodated with change ([0065], lines 1-3), and accommodated ([0054], lines 1-3)”.

11. With respect to Claims 7 and 14, Benveniste disclosed: “wherein said determining the ability to accommodate is based on at least one factor selected from a group consisting of: a requested servicing method ([0050], lines 1-7), a proposed schedule ([0050], lines 1-7), network operating state ([0050], lines 1-7), network policy ([0050], lines 1-7), and network condition ([0050], lines 1-7)”.

12. With respect to Claim 15, Benveniste disclosed: “The device as recited in claim 8, further comprising: an I/O device operable as an interface between said network and said processor (Figure 3, objects 301, 304)”.

13. With respect to Claim 16, Benveniste disclosed: “The device as recited in claim 8, wherein said code is stored in said memory ([0040], lines 1-6)”.

14. With respect to Claim 17, Benveniste disclosed: “The device as recited in claim 8, further comprising: a receiving device to receive said requests (Figure 3, object 301); and a transmitting device to provide said respective indications to the first and second ones of said client devices (Figure 3, object 304).”

15. With respect to Claim 19, Benveniste disclosed: “The processor as recited in claim 18, wherein said processor is further configured to execute code to cause the network component to: provide respective indications of denying said requests for service to the first and second ones of the client devices when said operating state indicates that said requests for service are unable to be accommodated ([0052], lines 1-5)”.

16. With respect to Claim 20, Benveniste disclosed: “The processor as recited in claim 18, wherein said operating state is selected from a group consisting of: processing load ([0052], lines 3-5), demand ([0050], lines 1-7), projected processing load ([0050], lines 1-7), projected demand ([0050], lines 1-7), network component operating state ([0036], lines 3-5, data is not transferred when the device is in power-saving mode), network component policy ([0050], lines 1-7), and network component condition ([0036], lines 3-5, data is not transferred when the device is in power-saving mode)”.

**17. Claims 2, 9, 21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benveniste and Meier in view of Smith et al. (US 2003/0126244 A1).**

18. With respect to Claims 2, 9, 21 and 23, the combination of Benveniste and Meier did not explicitly state: “in response to being unable to accommodate the unscheduled request, providing a proposed schedule to the second one of the client devices”.

However, Smith disclosed: “in response to being unable to accommodate the unscheduled request ([0028], lines 1-4 and [0029], lines 1-2, where a request is denied), providing a proposed schedule to the second one of the client devices ([0029], lines 1-2, and [0034], lines 1-6, where a denied request is scheduled for a future time)”.

One of ordinary skill in the art at the time of the invention would have been motivated to combine Benveniste and Meier with Smith since Benveniste and Meier disclosed a method for communicating with wireless devices and Smith disclosed a method for scheduling communication with wireless devices.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the scheduling system of Benveniste and Meier with the teachings of Smith to include support for denying an unscheduled request and providing a schedule for the denied request. Motivation to combine these comes from Smith, where: “In particular, there is a need in the art for mechanisms to more efficiently use network resources within a pull technology environment by balancing the network and server workload during periods when the demand on resource bandwidth exceeds the resource's capability to provide that bandwidth in real time” ([0005], lines 3-8). Therefore by combining the references one can schedule requests that would overload a network for a future time, and thereby utilizing network resources more efficiently.



**(10) Response to Argument**

The examiner summarizes the various points raised by appellant and addresses replies individually.

Appellant argued that:

(1) Meier does not disclose “said network component being informed of said scheduled request by a field of a traffic specification format being set to a first value, said network component being informed of said unscheduled request by said field of said traffic specification being set to a second value different from said first value” (pg 13, first full paragraph – pg 14, line 5).

**In reply** to argument (1): Examiner respectfully disagrees. Meier disclosed the use of a bit, or a field of a traffic specification format, to indicate if the message is scheduled or unscheduled (see for example, Meier, the table below [470], specifically Bit 14). This bit in Meier indicates whether the message containing the bit is scheduled or unscheduled. By combining Benveniste with the teachings of Meier to include support for this bit, the combination disclosed the above limitation.

(2) “the unscheduled field of Meier appears to indicate whether the advertisement is a periodic advertisement or a requested advertisement. This is not the same thing as a field of traffic specification format which indicates whether a received

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client request is a request for scheduled service or a request for unscheduled service” (pg 13, lines 15-19).

**In reply** to argument (2): Examiner respectfully disagrees. Firstly, Benveniste was cited for disclosing the scheduled or unscheduled client request for service (see for example, Benveniste, [0025] and [0026], specifically [0025] where the invention can handle aperiodic traffic and periodic traffic). Benveniste did not explicitly state that the client request included a field for indicating whether the request was scheduled or unscheduled. Meier was used in combination to disclose a field indicating that the request is scheduled or unscheduled (Meier, table below [0470], Bit 14). By combining the references, the client request of Benveniste can include the field of Meier indicating whether or not the request is scheduled or not.

Furthermore, in Meier, a periodic advertisement is scheduled and a requested advertisement is unscheduled. The periodic advertisement (in which the unscheduled bit would be set to off) is a scheduled message because the message occurs at an interval according to a schedule. An advertisement (in which the unscheduled bit would be set to on) made in reply to an unscheduled request for an advertisement is an unscheduled advertisement message because there is no schedule to adhere to for sending the message, and it is unknown when a request for an advertisement will occur. An advertisement in reply to an unscheduled request for the advertisement is still an unscheduled advertisement message. Therefore, the unscheduled bit indicates if the advertisement message is scheduled or unscheduled. Thus, by combining the

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references, the client request of Benveniste can include the unscheduled bit to indicate whether or not the client request is a scheduled or unscheduled request for service.

(3) Appellant further argues that the examiner has employed hindsight reasoning (see pg 14, first full paragraph, lines 3-6).

**In reply** to argument (3), Appellant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

(4) "This reasoning also appears to be contrary to the principles of operation of Meier.... If such requests are not honored before the next scheduled advertisement message from an SCM, the process of discovery would not be speed up" (see pg 14, first full paragraph, lines 6-10).

**In reply** to argument (4): Examiner respectfully disagrees. The motivation to combine the references applies to the combined references, not to Meier in particular.

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Therefore, the request would be the client request of Benveniste, and servicing scheduled requests takes precedence over unscheduled requests.

Furthermore, in the period for scheduled advertisements may be any period chosen by an implementer of the system. Thus it is clear to one of ordinary skill in the art at the time of the invention that such a period can vary widely. For example the period can be set to 24 hours or longer, and therefore it is unlikely that an unscheduled requests will not speed up the process of discovery.

(5) “The Examiner also appears to content that Benveniste already knows whether a client request is for scheduled or unscheduled service when it is received. Assuming the Examiner's interpretation of Benveniste is correct, there would be no motivation to modify Benveniste to include such a field in client requests” see pg 14, first full paragraph, lines 10-13).

**In reply** to argument (5): Examiner respectfully disagrees. While Beneveniste disclosed knowledge of a scheduled or unscheduled request (see for example, [0025] and [0026]), Benveniste does not explicitly state that the request includes a field indicating if it is scheduled or unscheduled. Therefore, by combining the references, the unscheduled flag of Meier can indicate whether the client request of Benveniste is scheduled or unscheduled. The system can save time and processing power by looking at the one bit flag in the request, rather than having to compare the time the request is

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received and the senders' identity to a predefined schedule in order to determine if the request is scheduled or unscheduled.

(6) “Claims 3-7 depend from claim 1, claims 10-17 depend from claim 8, and claims 20 and 21 depend from claim 18. Accordingly, claims 1, 3-8, 10-18 and 21-22 are not rendered obvious by Benveniste alone or in combination with Meier” (pg 14, second full paragraph).

**In reply** to argument (6): Examiner respectfully disagrees; see above rejections and responses to arguments.

(7) “Claims 2, 9, 19 and 23 depend respectively from claims 1, 8, 18 and 22... Accordingly, claims 2, 9, 19 and 23 are not rendered obvious by Benveniste alone or in combination with Meier and Smith” (pg 14, last paragraph).

**In reply** to argument (7): Examiner respectfully disagrees; see above rejections and responses to arguments.

#### **(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

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**(12) Conclusion**

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Matthew Lindsey

/M.L./

/John Follansbee/

Supervisory Patent Examiner, Art Unit 2451

Conferees:

/Hassan Phillips/

Primary Examiner, Art Unit 2451

/John Follansbee/

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